## NEW DESCRIPTIONS

# PSEUDOSCORPIONS FROM SOUTH INDIA-FOUR NEW SPECIES OF THE FAMILY CHERNETIDAE MANGE AND CHELIFERIDAE HAGEN (PSEUDOSCORPIONIDA, MONOSPHYRONIDA) ${ }^{1}$ 

S. Sivaraman ${ }^{2}$<br>(With four text-figures)

Lamprochernes indicus sp. nov. of the family Chernetidae Mange and Withius suis sp. nov., Metawithius (Microwithius) chamundiensis and M. (M.) bulli sp. nov. are described from South India and compared with related species. A Key to the new species is also given.

## INTRODUCTION

The members of the super family Cheliferoidea, Chamberlin are widely distributed in Continental India. A number of species were described from India and Ceylon by Beier ( 1973,1974 ) and Murthy and Anantinakrishnan (1977). In the present paper, new species of the genera Lamprochernes Tomosvary, Withius Kew and Metawithius Chamberlin are described. Lamprochernes indicus sp. nov. and Withius suis sp. nov. were collected from soil litter by using modified Berlese funnel (Sivaraman 1979) and Metawithius species were collected from bark of trees. The type material is deposited in the Museum of the Department of Zoology, Loyola College, Madras.

Key to the new species of Families Chernetidae and Cheliferidae:

1. Accessory teeth absent: both palpal fingers with equally developed venom tooth and venedens;

[^0]flagellum with 4-5 setae; Sternites of male mostly with special Setigerous area; (Family Cheliferidae Hagen and subfamily Withinae Chamberlin)

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Accessory teeth present atleast in smaller numbers; only the movable finger of the palp with venom tooth and venedens; very rarely with rudimentary venedens on the fixed finger, if so, the accessory teeth very clear. (Family Chernetidae, Mange)...Lamprochernes indicus sp. nov.
2. Carapace with sides subparallel, as wide at the region of the anterior furrow as at the posterior border; males with patches of microsetae on Sternites V to IX or X (both inclusive) with true eyes. ............... Withius suis sp. nov.

Carapace broader at the anterior furrow region or slightly anterior there to; sides converging abruptly infront and gradually to the rear; males with patches of microsetae on Sternites VII to IX (both inclusive) only with eye-spots. (Genus Metawithius Chamberlin and subgenus Microwithius Redikozev). . . . . . . . . . . . . . . . . . . . 3
3. Serrula exterior with 17 blades; palpal and pedal podomeres slender. ..................Metawithius (Microwithius) chamundiensis sp. nov. Serrula exterior with 15 blades; palpal and pedal podomeres stouter.
......Metawithius (Microwithius) bulli sp. nov.

Lamprochernes indicus sp. nov. (Fig. 1)
Carapace and palps dark yellowish brown and the remaining parts light yellowish brown; carapace smooth, with rounded granules on the lateral margins; with anterior prominent groove, nearly median and posterior grocive obscure and nearly median between anterior groove and posterior margin of carapace; eyes or eye-spots absent; anterior end with 8, posterior margin with 10 setae; carapace distinctly longer than broad, 1.25 times as long as wide.

Tergites fairly sclerotised; all tergites and sternites except I, II and III divided more or less clearly by a nearly linear suture; tergites 1 and II markedly narrowed; tergal chaetotaxy of an imperfect biseriate type, with about 6
discal and 16 marginal setae, posteriorly with 6 discal and 20 marginal setae; sternal chaetotaxy similar, with 6 discal and 18 to 20 marginal setae; tergites with prominent lateral maculae or spots occupying nearly the full outer half of each scute; but less prominent on sternites; X tergite with 2 and XI tergite with 6 pseudotactile setae and X and XI sternites with two pseudotactile setae each; pleural membrane reticulostriate. Vestitural setae long, slender and acuminate.

Palm of the chelicera with reticulate markings, with 5 setae $s b$ and $b$ short; flagellum with 3 blades; fixed finger with 3 terminal serrations followed by 3 triangular teeth; apical tooth of the movable finger well developed, subapical tooth blunt; lamina interior with 4


Fig. 1. Lamprochernes indicus sp. nov. A-Chela lateral view; B-Palp entire ( ㅇ ).
dentate sub-apical lobes; serrula exterior with 17 ligulate blades; galea of the male stout and short and of female, prominent with 3 terminal and 2 subterminal curved branches; galea seta long and acuminate; shorter than galea and equal to the length of galea in the male. Chelicerae, 2.5 times as long as deep, 1.5 times as long as the movable finger.

Palps longer than the body, segments fairly robust; finely granulated on the flexor margins of femur, tibia and near the base of chelal fingers. Trochanter coarsely granulated, with a prominent cone-like protruberance; 1.75 to 1.8 times as long as wide; femur robust, gently concave anteriorly and strongly convex posteriorly; pedicellate; slightly shorter than tibia 1.34 time as long as trochanter and 1.75 to 1.85 times as long as wide; tibia slightly but distinctly shorter than carapace; with a curved pedicel, 1.85 to 1.95 times as long as wide; chela robust; pedicellate, 2.45 to 2.55 times (with pedicel), 2.28 to 2.35 times (without pedicei) as long as wide; hand more or less conical in dorsal vie:v, slightly longer than tibia; 1.41 to 1.45 times (with pedicel), 1.22 to 1.28 times (without pedicel) as long as wide; fingers gently curved and only slightly longer than the breadth of hand and shorter than the length of hand; chela, 1.84 times as long as tibia; fixed finger with 29 and movable finger with 32 marginal teeth; movable finger with four accessory teeth opposite to the 10 th to 21st marginal teeth at regular intervals; the exterior accessory teeth absent; fixed finger with two subapical accessory teeth interiorly nearer to the 4th and 5th marginal teeth; sb and $b$ separated by three areolar diameters; $s t$ in between $t$ and $s b$; nodus ramosus opposite to 18 th marginal tooth and cauded to $t$; et nearly terminal, opposite to 7th marginal teeth; it distad of median and much distal of est; est and ist about opposite to each
other; the distance between the finger $t i p$ and it more than the distance between isb and ist; $i s b, i b, e s b$ and eb proximal of basal marginal teeth; a submedian pseudotactile seta occurring on each finger; two dense sensory-spots interiorly between ist and isb; four such spots proximed of isb and esb; three more sensory spots distal of esb exteriorly; movable finger devoid of such spots.
Legs stout, smooth with vestitural setae; basifemur shorter than telofemur and movably articulated.

Leg. I: femur (both segments), 2.89 times; tibia, 3.82 times and tarsus, 3.8 times as long as deep. Vestitural setae of tibia and tarsus long and acuminate. Leg IV: femur (both segments), 3.5 times; tibia, 3.88 times; tarsus, 4.18 times as long as deep. Leg III with one pseudotactile seta at the middle region of the tarsus and Leg IV with pseudotactile setae one at the distal half of tibia and another at the $1 / 3 \mathrm{rd}$ of the proximal half of tarsus.
Male genitalia of characteristic lamprochernetine type, female genitalia simple with tuft of 18 setae in the anteriomedial region and posteriorly guarded with a row of 10 setae. Holotype: female (Measurements in mm.):
Total body length, 2.380; abdominal breadth, 0.780 ; carapace, 0.612 by 0.489 ; chelicera, 0.334 by 0.133 ; movable finger, 0.289 long.
Palps: trochanter, 0.311 by 0.178 ; femur, 0.417 by 0.234 ; tibia, 0.478 by 0.256 ; chela, 0.878 (without pedicel, 0.812 ) by 0.356 ; hand, 0.500 (without pedicel, 0.434 ) by 0.356 ; fingers, 0.378 long.

Leg I: miofemur, 0.289 by 0.100 ; tibia, 0.234 by 0.061 ; tarsus. 0.211 by 0.056 . Leg IV: miofemur, 0.467 by 0.133 : tibia, 0.345 by 0.089 ; tarsus, 0.256 by 0.061 .
Collected from soil litter, Bangalore, Karnataka, 10-7-1977.

Allotype: male (Measurements in mm):
Total body length, 2.18; maximum width, 0.712. Collected from soil litter, Bangalore, Karnataka, 10.7.1977.
Paratype: 2 females and one male collected from the same locality, 10-7-1977.
This new species is very closely related to L. oblongus (Say) in having si of the movable palpal finger in the middle in between $s b$ and $t$ and the palpal fingers shorter than that of hand without pedicel. It could be separated from the same by the stouter nature of palpal femur and slender nature of chela ( $L$. indicus -femur, 1.75 to 1.85 times and chela with pedicel, 2.45 to 2.55 times as long as wide; L. oblongus-femur, 2.0 times and chela, 2.3 times as long as wide) and the elongated nature of the body. L. indicus sp. nov. can be separated from L. savignyi (Simon), record-
ed from India by Beier, by the position of $s t$ in between $t$ and $s b$ and stouter nature of palpal femur and tibia.

Withius suis sp. nov. (Fig. 2)
Carapace well sclerotised, anterior $1 / 3$ region reddish and posterior $2 / 3$ region brownish in males; moderately sclerotised in females; carapacal furrows distinct; anterior furrow slightly anterior to the first pair of legs and the posterior in a level with second pair of legs; anterior region deeply convex and the posterior region much flattened; sides subparallel with the maximum width in the posterior region; postero-lateral regions membranous; anterior pair of eyes well developed; surface of the carapace with a large number of well distributed plumose setae; anterior end with 6 and posterior end with 12 such setae; carapace, 1.31 times as long as wide.


Fig. 2. Withius suis sp. nov. A-Pedipalp entire ( $\hat{\delta}$ ); B-Chela lateral view.

Tergites brownish; well sclerotised; tergites compietely divided excepting XII; tergites I to III uniseriate and the rest biseriaie; tergal chaetotaxy of male; $12-12-12-6 / 10-6 / 10$ $-6 / 12-6 / 10-6 / 12-6 / 10-6 / 8-8-$ 2 m ., female with lesser number of setae with the chaetotaxy: $8-10-12-2 / 10-2 / 8-4 / 10$ $-4 / 10-4 / 10-10-2 \mathrm{~m}$. Sternites less sclerotised than the tergites; sternites IV to X completely divided; sternal chaetotaxy of female from the IV sternite: $2 / 12-2 / 10-4 / 12-4$ ! $12-4 / 10-4 / 10-4 / 8-10-2 \mathrm{~m}$. (The numbers in the upper row indicate the discal series and those in the lower row indicate the marginal series). Sternal chaetotaxy of male characteristic; sternite IV to IX with bristle patches in the median region of the scute, each patch with 25 to 30 setae; more setae are seen in the posterior sternites. Sternite X with 14 setae, XI with 8 setae and XII with 2 setae; X and XI tergites and sternites with four pseudotactile setae each.

Paim of the chelicera nongranulated but with net like markings; with 5 setae; ls, es and is long; sb and $b$ short and acuminate; fixed finger with 3 terminal serrations followed by 4 triangular teeth; lamina interior well developed with an elongated apical dentate process; apical tooth of the movable finger curved and blunt and subapical tooth flattened and blunt; galea of male short, stout with three terminal vestigeal bud-like projections, galea of female stout with two terminal and one subterminal branches; galeal seta equal to the length of galea; serrula exterior with 14 blades; flagellum with 4 blades, distal one serrated; chelicerae, 1.73 times as long as deep and 1.36 times as long as movable finger.

Palps reddish brown, dorsal tubercle of trochanter, flexor and extensor margins of femur and tibia well and coarsely granulated; most
of the vestitural setae of the trochanter, femur and tibia plumose; trochanter with a short pedicel and dorsal tubercle; 1.83 times as long as wide; femur with a short pedicel; extensor margin strongly convex and the flexor margin more or less straight; 3.24 times as long as wide; tibia with a long pedicel, which $1 \frac{1}{2}$ times as long as wide; clavate; 2.79 times as long as wide; chela slender with a short pedicel, 3.78 times (with pedicel), 3.0 times (without pedicel) as long as wide; hand shorter than femur and tibia and much longer than fingers; 2.17 times (with pedicel), 1.83 times (without pedicel) as long as wide, fingers, 0.74 times as long as the hand (with pedicel) and 0.43 times as long as the chela (with pedicel); fingers equal in length; ist of the fixed finger proximal in position, est closer to et than to esb; almost in the middle region of the finger; $i b$ and $e b$ in a same level; it below the level of est and proximal in position. Venom glands and venom ducts well developed in both the fingers; movable finger with 32 teeth of which the proximal teeth are flattened and fixed finger with 30 retroconical teeth.

Legs yellowish in female and brownish in male; weakly granulated; vestitural setae mostly acuminate and in some regions clavate. Leg I: basifemur shorter than telofemur; basifemur, 0.83 times; telofemur, 2.0 times; tibia, 4.0 times and tarsus, 5.0 times as long as deep. Leg IV: miofemur robust and stout; longer than tibia; tibia more swollen along the flexor margin; miofemur, 3.03 times; tibia, 5.0 times and tarsus, 5.8 times as long as deep; without pseudotactile setae; however 2 elongated setae are seen near the tip of the tarsus, claws normal, arolium simple and undivided; shorter than claws.
Male genitalia complicated with 6 setae on either side of the operculum; female genitalia
with one median and two lateral cribriform plates; coxal area sexually differentiated; IV coxa of female broader with a cluster of acuminate bristles (12) in the posterior area; coxal area of male simple.
Holotype: male (Measurements in mm ):
Total body length, 2.246; maximum width, 0.834 ; carapace, 0.70 by 0.534 ; chelicerae, 0.211 by 0.122 ; fingers, 0.156 long.

Palps: trochanter, 0.367 by 0.20 ; femur, 0.612 by 0.187 ; tibia, 0.589 by 0.211 ; chela 0.967 (without pedicel, 0.767) by 0.256 ; hand, 0.556 (without pedicel, 0.467 ) by 0.256 ; fingers, 0.411 long.

Leg I: basifemur, 0.111 by 0.133 ; telofemur, 0.267 by 0.133 ; tibia, 0.289 by 0.072 ; tarsus, 0.278 by 0.056 . Leg IV: miofemur, 0.523 by 0.172 ; tibia, 0.445 by 0.089 ; tarsus, 0.322 by 0.056 .

Collected from debris of piggery, Madras, 31-3-1976.
Allotype: female (Measurements in mm ):
Total body length, 2.091; maximum width, 0.712 .

Collected from debris of piggery, Madras, 31-3-1976.

This species is very closely related to Withius indicus Murthy \& Ananthakrishnan in having similar number of setae on tergites and sternites. It can be differentiated by the slender nature of palpal podomeres; the setigerous area of the sternites of males having lesser number of sensory spines and much slender nature of IV pair of walking leg.

It can be separated from $W$. subruber (Simon) (closely related to $W$. indicus), by the galea being sexually differentiated and the longer nature of the body.

Metawithius (Microwithius) chamundiensis sp. nov. (Fig. 3)

Carapace brownish, densely and coarsely
granulated; very distinctly constricted from the middle region towards the distal. Anterior transverse furrow well developed and deep, granulated within; posterior furrow distinct but shallow. Anterior furrow strongly arched forwards at the sides. Eye spots two, large and distinct and non corneate. Vestitural setae mostly plumose. Anterior end of the carapace straight with 6 small clavate setae; cucullus well developed; posterior end with 10 plumose setae. Carapace, 1.34 times as long as wide.

Tergites transversely well granulated, and undivided; tergal setae short and strongly plumose. Chaetotaxy of male $10-10-10-8(4)$ $-10(4) / 2-10(4) / 2-10(4) / 2-10(4) /$ $2-8(4) / 2-6(2) / 2-10-0$. Tergite XI with 2 elongated tactile setae. Sternites ill sclerotised, sternal setae simple and acute. Sternal chaetotaxy of male from the IV sternite shows characteristic difference $10-10-12-10 /$ $(24)-10(2)!(25)-10(2) /(26)-10(2)$ $-10-2 \mathrm{~m}$. The sternites VII to IX of the male with, roundish areas near the median line, each with $24-26$ closely approximated, rather long and conical sensory spines. Sternite XI with 4 slightly elongated pseudotactile setae; in female the setal patches on the sternites absent.

Palm of the chelicera very finely granulated and rasplike. All the 5 setae well developed; ls and is long and acuminate. es, $s b$ and $b$ of equal and of moderate length and acuminate. Flagellum with 4 blades, the second branch from the distal is the longest, acuminate and not serrated. Fixed finger with 3 terminal serrations followed by 3 triangular teeth. Lamina interior well developed with 6 serrations followed by 2 rounded dentate lobes. Basally the lamina is very broad, more or less closing the gap between the two fingers. Movable finger with apical tooth well


Fig. 3. Metawithius (Microwithius) chamundiensis sp. nov. A-Chela lateral view; B-Pedipalp entire ( $\widehat{\circ}$ ).
developed and subapical tooth is lobe like. Serrula exterior with 17 blades; in male galea seta equal to the length of the galea; stout and terminally blunt; in female galea slender and terminally branched with 3 rami. Chelicera, 2.11 times, as long as deep.
Palps yellowish brown, coarsely well granulated excepting the pedicels and chela. Palpal segments slender; vestitural setae of the podomeres excepting the chela clavate.

Trochanter with a long pedicel, dorsal tubercle well developed; 1.4 times as long as wide. Femur with a short pedicel, more or less swollen along the extensor margin, with
the maximum width in the basal region, 2.77 times as long as wide; tibia with a long pedicel, 1.3 times as long as wide; medially swollen in the flexor margin and distally swollen in the extensor margin, 2.75 times as long as wide; chela smooth, rounded, posteriorly swollen on the flexor margin, 3.55 times (with pedicel), 3.32 times (without pedicel) as long as wide. Hand, 2.1 times (with pedicel), 1.86 times (without pedicel) as long as wide; hand with pedicel more or less equal to the length of tibia and slightly longer than that of femur: hand distinctly longer than fingers. Fingers subequal in size, 0.40 times as long as the chela
and 0.70 times as long as the hand. Venom teeth and glands equally developed in both the fingers. Movable finger with 30 and fixed finger with 29 retroconical teeth. Proximal $1 / 5$ of both the fingers devoid of teeth. The tactile setae $s b$ and $b$ of the movable finger basal in position and separated by two areolar diameters $s t$ midway between $s b$ and $t ; t$ in the distal half of the finger; it proximal in position in a level with ist; est in the distal region of the finger.

Legs robust, golden yellowish in colour, finely granulated; vestitural setae clavate and acuminate. Leg I: basifemur shorter than telofemur, 0.90 times as long as deep; telofemur, 1.9 times; tibia, 3.07 times; tarsus, 4.44 times as long as deep. Leg IV: miofemur, 2.71 times; tibia , 4.42 times; tarsus, 4.6 times as long as deep. Tarsus with a pseudotactile seta situated slightly distal of the middle region; 0.52 times as long as the tarsus. Claws normal, arolium entire and equal in length to that of claws.

Male genitalia well developed, genital sacs well elongated. Anterior operculum with 2 setae on either side.
Holotype: male (Measurements in mm.):
Total body length, 1.946; maximum width, 0.767 : carapace, 0.611 by 0.455 ; chelicera, 0.211 by 0.100 .

Palps: trochanter, 0.20 by 0.145 ; femur, 0.478 by 0.172 ; tibia, 0.489 by 0.178 ; chela, 0.867 (with pedicel), 0.812 (without pedicel) by 0.245 ; hand, 0.512 (with pedicel), 0.456 (without pedicel) by 0.245 ; fingers, 0.355 long.

Leg I: basifemur, 0.111 by 0.122 ; telofemur, 0.233 by 0.122 ; tibia, 0.233 by 0.122 ; tarsus, 0.222 by 0.056 .

Leg IV: miofemur, 0.422 by 0.155 ; tibia, 0.344 by 0077 ; tarsus, 0.255 by 0.055 .

Collected from barks, Chamundi Hills,

Mysore, Karnataka State, 25-5-1977.
This species is related to Metawithius (M.) indicus Murthy \& Ananthakrishnan in having the patches of setae on the sternites VII to IX. It can be easily separated from $M$. (M.) indicus by the slender nature of the chela and the slender nature of the podomeres of the IV pair of walking legs and by the undivided nature of the tergites and simple unbranched nature of the galea of the male.

Metawithias (Microwithius) bulli sp. nov. (Fig. 4)
Carapace with two distinct anterior furrows; wider at the region of the anterior furrow; brownish, densely and coarsely granulated; very distinctly contsricted from the middle region towards the distal. Anterior furrow well developed and strongly arched forwards at the sides; posterior furrow distinct but shallow. Eye spots two, large and non corneate. Vestitural setae mostly plumose. Anterior end of the carapace straight with 6 small clavate setae; cucullus well developed; posterior end with 12 plumose setae. Carapace, 1.1 to 1.2 times as long as wide.

Tergites transversely well granulated and undivided; tergal setae short and strongly plumose. Chaetotaxy of male $10-12-10-$ $12(2)-10(4) / 2-10(4) / 2-10(4) / 2-$ $8(4) / 2-8(4) / 2-8(4) / 2-12-2 \mathrm{~m}$. Tergite XI with 2 elongated tactile setae. Sternites ill-scleroiised, sternal setae simple and acute; sternal chaetotaxy of male from IV sternite shows characteristic difference $10-10$ $-12-15 /(25)-14(2) /(25)-10(2) /(25)$ $-10(2)-12-2 \mathrm{~m}$. Sternites VII to IX of the male with roundish areas near the median line, each with 25 closely approximated, long and sensory spines. Sternite XI with 4 slightly elongated pseudotactile setae; in female the setal patches on the sternites are absent.


Fig. 4. Metawithius (Microwithius) bulli sp. nov. A-Chela lateral view; B-Pedipalp entire ( $\hat{0}$ ).

Palm of the chelicera very finely granulated and rasplike. All the five setae well developed; except $b$ all the other four setae ( $l s$, is, $e s$ and $s b$ ) are long and acuminate. Flagellum with 4 blades and not serrated. Fixed finger with 3 terminal serrations followed by 3 triangular teeth. Lamina interior well developed with 6 serrations followed by 2 rounded lobes. Movable finger with the apical tooth well developed and subapical tooth lobe like; serrula exterior with 15 blades. In male galeal seta short, stout and blunt terminally; in female galea slender and terminally branched with 3 rami; chelicera, 1.9 times as long as deep.

Palps yellowish brown, densely granulated
excepting the pedicels and chela. Palpal segments stout; vestitural setae of the podomeres excepting the chela clavate. Trochanter with a long pedicel, dorsal and lateral tubercles well developed; 1.67 to 1.72 times as long as wide. Femur with a short pedicel, more swollen along the extensor margin with the maximum width in the basal region, 2.56 to 2.7 times as long as wide; tibia with a long pedicel; medially swollen in the flexor margin and distally swollen in the extensor margin, 2.3 to 2.6 times as long as wide; chela smooth, posteriorly swollen on the flexor margin, 2.9 to 3.3 times (with pedicel), 2.7 to 3.1 times (without pedicel) as long as wide. Hand, 1.8 to 2.0 times (with pedicel) 1.5 to 1.7 times
(without pedicel) as long as wide; hand with pedicel more or less equal to the length of tibia and femur; hand distinctly longer than fingers. Fingers subequal in size, 0.42 times as long as the chela and 0.63 times as long as the hand. Venom teeth and glands equally developed in both fingers. Movable finger with 33 and fixed finger with 27 retroconical teeth. Proximal $1 / 5$ of both the fingers devoid of teeth. The tactile setae $s b$ and $b$ of the movable finger basal in position and separated by one areolar diameter; st midway between $s b$ and $t ; t$ in the exact middle region of the finger; it in the middle of the finger more or less in a level with ist; est in the distal region of the finger.

Legs robust, golden yellowish in colour, finely granulated; vestitural setae clavate and acuminate. Leg I: basifemur shorter than telofemur, 0.83 times as long as deep; telofemur, 2.08 times; tibia, 3.28 times; tarsus, 4.0 times as long as deep. Leg IV: miofemur, 2.56 times; tibia, 3.77 times, tarsus, 4.16 times as long as deep. Tarsus with a pseudotactile seta situated in the middle region; 0.6 times as long as the tarsus. Claws normal, arolium entire and slightly shorter than the claws.
Male genitalia well developed, genital sacs well elongated. Anterior operculum with 3 setae on either side.
Holotype: male (Measurements in mm.):
Total body length, 2.035; maximum width, 0.778 ; carapace, 0.656 by 0.578 ; chelicera, 0.211 by 0.111 .

Palps: trochanter, 0.289 by 0.177 ; fcmur, 0.556 by 0.219 ; tibia, 0.567 by 0.211 ; chela, 0.867 (with pedicel), 0.812 (without pedicel)
by 0.30 ; hand, 0.578 (with pedicel), 0.523 (without pedicel) by 0.30 ; fingers, 0.367 long.
Leg I: basifemur, 0.111 by 0.133 ; telofemur, 0.278 by 0.133 ; tibia, 0.256 by 0.078 ; tarsus, 0.222 by 0.056 . Leg IV: miofemur, 0.456 by 0.178 ; tibia, 0.378 by 0.10 ; tarsus. 0.278 by 0.067 .

Collected from barks, Bangalore, Karnataka State, 25-5-1977.
Allotype: female (Measurements in mm.):
Total body length, 2.072; maximum width, 0.789 .

Collected from bark, Bangalore, Karnataka State, 25-5-1977.
Paratype: 5 males and 1 tritonymph collected at the same locality, 25.5.1977.
This species is closely related to Metawithius (M.) chamundiensis in having patches of setae on sternites VII to IX and by the undivided nature of the tergites. It can be distinguished from $M$. (M.) chamundiensis by the stouter nature of the palpal and pedal podomeres and lesser number of blades in serrula exterior, 15 blades against 17 or 18 in $M$. (M.) chamundiensis sp. nov. and M. (M.) indicus Murthy \& Ananthakrishnan resspectively.

## Acknowledgements

I am indebted to Rev. Fr. J. Kuriakose, S.J., Principal for the kind provision of research facilities and encouragement. I am thankful to Dr. V. A. Murthy for identification and criticisms. Thanks are due to my colleagues for their timely help. This work was supported by a UGC Teachers' minor project grant.

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## A NEW GENUS OF RUBIACEAE FROM GREAT NICOBAR ISLAND, INDIA ${ }^{1}$

N. P. Balakrishnan ${ }^{2}$

(With a text-figure)


#### Abstract

A new monotypic genus, Jainia Balakr. of Rubiacae from Great Nicobar Island in Bay of Bengal is described with illustrations. It differs from the nearest allied genus Coptophyllum Korth. mainly in being completely glabrous, in trimerous corolla with three stamens and erect stigmatic lobes.


The recent intensive botanical explorations in Andaman and Nicobar Islands by the newly established Regional Station of Botanical Survey of India at Port Blair yielded many new species and new records for Indian Flora, particularly from the little-explored Great Nicobar Island. This southernmost island in Andaman-Nicobar group is situated at about 200 km northwest of Sumatra between $6^{\circ} 40^{\prime}-7^{\circ} 20^{\prime} \mathrm{N}$ and $93^{\circ} 30^{\prime}-94^{\circ} 00^{\prime} \mathrm{E}$. This island is largely hilly with the highest peak, the Mt. Thuiller rising to about 700 m above m.s.l. The island experiences very heavy rainfall, ranging from $250-350 \mathrm{~cm}$ per year spread over all the months of the year, with the least fall occurring in February-March and the maximum during June-December. It is almost completely covered with rich, dense, tropical

[^1]evergreen forests except a few areas along the southeast and southwest coasts where settlements have sprung up recently. The flora of the island is largely Malesian with more than $65 \%$ of the species showing distribution extending to Malaysia and Indonesia. About $10 \%$ of the species are endemic.
During a recent trip to the Great Nicobar island, a species of Rubiaceae with white flowers in terminal heads was seen growing along shaded streamsides, in dense, evergreen forests. On examination it is found to be a new genus allied to Coptophyllum Korth. and is described and illustrated below.

Jainia gen. nov.
Pertinet ad Hedyotideas e familia Rubiacearum et proxime accedit Coptophyllo Korth., a qua tamen differt plantis glabris; bracteis involucralibus 4 vel 5 ; calycibus pentameris, glabris; corollis trimeris; staminibus 3, insertis ad bases corollarum; stigmatibus erectis.


[^0]:    ' Accepted February 1980.
    " Department of Zoology, Loyola College, Madras 600034 , India.

[^1]:    ${ }^{1}$ Accepted March 1980.
    ${ }^{2}$ Botanical Survey of India, Andaman-Nicobar Circle, Port Blair-744 102, India.

